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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

CORRIELUS, JEAN M

ART UNIT	PAPER NUMBER
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2172

DATE MAILED: 04/21/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary

Application No.

09/904,174

Applicant(s)

RISING ET AL.

Examiner

Jean M Corrielus

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 December 2003.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,4-6 and 8-26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,4-6 and 8-26 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 9.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____.

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DETAILED ACTION

1. This office action is in response to the amendment filed on December 5, 2003, in which claims 1-2, 4-6 and 8-26 are presented for further examination.

Response to Arguments

2. Applicant's arguments with respect to claims 1-2, 4-6 and 8-26 have been considered but are moot in view of the new ground(s) of rejection necessitated by amendment.

Information Disclosure Statement

3. The information disclosure statement filed December 1, 2003 complies with the provisions of 37 CFR 1.97 and MPEP § 609. It has been placed in the application file. The information referred to therein has been considered as to the merits

Drawings

4. Applicants are required to furnish the formal drawings in response this office action. No new matter may be introduced in the required drawing. Failure to timely submit a drawing will result in **ABANDONMENT** of the application.

5. The drawings are objected to under 37 CFR 1.83(a) because they fail to show the limitations as described in the claims. Any structural detail that is essential for a proper understanding of the disclosed invention should be shown in the drawing. MPEP, 608.02(d). A

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proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

6. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, all the limitations of the claims must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

7. The added submitted drawing (fig.4) has introduced new matter, which is not previously described in the specification. Applicant is advised to cancel this new matter from the application.

Claim Rejections - 35 U.S.C. 112

8. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

9. Claims 1-26 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. The limitations of the claims cannot be understood using the information described in the specification. The information given in the claims does not described the specification in a

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way to enable one having ordinary skill in the art to make and use the invention. The claims, however, cannot be examined properly without providing a detail explanation as to how the claimed languages are link with the specification. Applicants are advised to amend the specification and provide a detail explanation as to where each claim language is described in the specification. For example, claim 1 recites "corresponding relationships between the entities in the audio video sequence; determining the relations for representation by parameters to define the fuzzy relationships, each parameter having numerical values representing confidence in the corresponding fuzzy relationship". These features of claim 1 are supported by the specification. Applicants are reminded that new matter should be added.

10. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

11. Claim 1 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

12. Claim 1 recites the limitation "the user" in line 9. There is insufficient antecedent basis for this limitation in the claim.

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Claim Rejections - 35 USC § 103

13. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

14. Claims 1-2, 4-6 and 8-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Goke et al., (hereinafter "Goke") US Patent no. 5,720,005 in view Bergman US Patent no. 6,564,263.

As to claim 1, as best understood by the examiner, Goke discloses the claimed ☐ ☐determining the relations for representation by parameters to define the fuzzy relationships, each parameter having numerical values representing confidence in the corresponding fuzzy relationship (col.1, line 20-35; as inputting to a membership function in a system which implements fuzzy logic, wherein the fuzzification is attached concrete numerical values to subjective expressions, wherein numerical values attempt to provide a good approximation to human perception which is not generally limited to an environment of absolute truths); and ☐obtaining from a user a numerical value for the parameter (col.8, lines 10-42). Goke discloses the use of writing a description containing relations corresponding to relationships between the entities in the audio video sequence (col.7, lines 5-40). However, Goke fails to disclose a relationship between the entities in the audio video sequence.

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On the other hand, Bergman discloses a system for describing streams or aggregation of multimedia content description. In particular, Bergman discloses a relationship between the entities in the audio video sequence (col.7, lines 3-40; col.8, lines 12-18; col.10, lines 30-44). It would have been obvious to one having ordinary skill in the art at the time the invention was made to combine the teachings of the cited references, wherein the fuzzy membership set, provided therein (See Goke's fig.5) would incorporate the use of a relationship between the entities in the audio video sequence, in the same conventional manner as disclosed by Bergman (col.7, lines 3-40; col.8, lines 12-18; col.10, lines 30-44). One having ordinary skill in the art at the time the invention was made would find it motivated to use such a combination because that would provide Goke's system the enhanced capability of browsing and accessing audio video data based on the relationship between entities.

As to claim 2, as best understood by the examiner, Bergman discloses the claimed □ combining an MPEG7 state DS with an additional field in an MPEG7 Graph type DS □ (col.9, lines 40-54).

As to claim 4, as best understood by the examiner, Goke discloses the claimed □ running, by a user, a query based on membership in the relation □ (col.1, line 20-35; col.7, lines 5-40; col.8, lines 10-42).

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As to claim 5, Goke discloses the claimed “determining the relations for representation by parameters to define the fuzzy relationships, each parameter having numerical values representing confidence in the corresponding fuzzy relationship” (col.1, line 20-35; as inputting to a membership function in a system which implements fuzzy logic, wherein the fuzzification is attached concrete numerical values to subjective expressions, wherein numerical values attempt to provide a good approximation to human perception which is not generally limited to an environment of absolute truths); and “obtaining from a user a numerical value for the parameter” (col.8, lines 10-42). Goke discloses the use of writing a description containing relations corresponding to relationships between the entities in the audio video sequence” (col.7, lines 5-40). However, Goke fails to disclose a relationship between the entities in the audio video sequence.

On the other hand, Bergman discloses a system for describing streams or aggregation of multimedia content description. In particular, Bergman discloses a relationship between the entities in the audio video sequence (col.7, lines 3-40; col.8, lines 12-18; col.10, lines 30-44). It would have been obvious to one having ordinary skill in the art at the time the invention was made to combine the teachings of the cited references, wherein the fuzzy membership set, provided therein (See Goke’s fig.5) would incorporate the use of a relationship between the entities in the audio video sequence, in the same conventional manner as disclosed by Bergman (col.7, lines 3-40; col.8, lines 12-18; col.10, lines 30-44). One having ordinary skill in the art at the time the invention was made would find it motivated to use such a combination because

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that would provide Goke's system the enhanced capability of browsing and accessing audio video data based on the relationship between entities.

As to claim 6, as best understood by the examiner, Bergman discloses the claimed □ combining an MPEG7 State DS with an additional field in an MPEG7 Graph Type DS □ (col.9, lines 40-54).

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As to claim 8, as best understood by the examiner, Goke discloses the claimed \square performing a query based on membership of an entity in one of the relations \square col.1, line 20-35; col.7, lines 5-40; col.8, lines 10-42.

As to claim 9, as best understood by the examiner, Seagraves discloses the claimed \square deriving a confidence value for the fuzzy relation from a parameter associated with one of the description schemes, the confidence value representing a degree to which the fuzzy relation is a member of a subset of relations among the description schemes \square (col.2, lines 14-17; col.4, lines 37-63; col.6, line 5-63; col.8, lines 26-61).

As to claim 10, as best understood by the examiner, Goke discloses the claimed \square wherein the parameter is an attribute value \square col.1, line 20-35; col.7, lines 5-40; col.8, lines 10-42.

As to claim 11, as best understood by the examiner, Goke discloses the claimed \square derived from a set of parameters associated with the description schemes \square (col.1, line 20-67; col.2, lines 55-62).

As to claim 12, as best understood by the examiner, Goke discloses the claimed \square modifying the confidence value in response to change in the parameter as the multimedia sequence progresses \square (col.8, lines 10-53).

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As to claim 13, as best understood by the examiner, Goke discloses the claimed \square wherein the description schemes represent entities in the multimedia sequence, the fuzzy relation represents a relationship between the entities, and the confidence value represents a state of the relationship \square (col.1, lines 60-67; col.2, lines 5-25; col.9, lines 12-45).

As to claim 14, as best understood by the examiner, Goke discloses the claimed \square wherein the state of the relationship is described by a state description scheme that specifies the parameter \square (col.1, lines 60-67; col.2, lines 5-25; col.9, lines 12-45).

As to claim 15, as best understood by the examiner, Goke discloses the claimed \square associating the description schemes with a set of vertices in a graph and the subset of relations with a set of edges among the set of vertices \square (col.9, lines 13-52; col.12, lines 17-45); and \square calculating the confidence value of the fuzzy relation using a membership function based on graph mapping \square (col.9, lines 12-62; col.7, lines 5-24).

As to claims 16 and 25, as best understood by the examiner, Goke discloses the claimed \square wherein the membership function is $m_X(X)=g_Of(x)$, where R is the set of edges over the set of vertices AXB , g defines a function for the parameter over a parameter space PS , and f is a parameterization function $f: AXB \rightarrow PS$, $g: PS \rightarrow$ (col.7, lines 5-67).

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As to claim 17, as best understood by the examiner, Goke discloses the claimed □ writing the graph without the edge representing the fuzzy relation if the confidence value is zero □ (col.7, lines 5-65).

As to claims 18- 26 are computer readable medium having executable instruction to perform the method of claims 9- 17. They are, therefore, rejected under the same rationale.

Conclusion

15. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jean M. Corrielus whose telephone number is (703) 306-3035. The examiner can normally be reached on Monday - Friday (12:00 PM - 7:30 pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John E Breene can be reached on (703) 305-9790. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Jean M. Corrielus

Patent Examiner

April 13, 2004